

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Tolco Corp

#### Ohio Manufacturing Extension Partnership

#### Absolutely No Leaks: Tolco Redesign Restores Product Quality

**Client Profile:**

Tolco Inc. is the manufacturer and distributor of a wide range of janitorial, cleaning, and safety products. Founded in 1961, Tolco sells more than 500 products to the janitorial, industrial, and food service markets in North America and 25 other countries around the world. The company, located in Toledo, Ohio, employs 35 people.

**Situation:**

Tolco struggled with the problem of a leaking industrial soap dispenser. Concerned that the defective product could damage the company's 40-year reputation for quality, the company contacted the engineering experts at the Lake Erie Manufacturing Extension Center (LEMEP), a NIST MEP network affiliate and division of EISC, Inc., for help resolving the problem.

**Solution:**

EISC led a problem-solving team of personnel from Tolco's production, operations, technical, and marketing staff in conducting a "root cause analysis," which examines production from start to finish. Brainstorming sessions, review of possible causes, and experiments to identify the most likely cause for the leak followed. Finally, the team pinpointed the design flaw. Tolco made several changes to the dispenser's components and tested the redesigned product at EISC's laboratory facility and in the field. Within two weeks, Tolco had solved its design defect and secured its reputation for producing only the highest quality products.

**Results:**

Redesigned product to ensure quality.  
Regained some lost market share.  
Developed a smaller-size unit with considerably less development time.  
Thoroughly documented design change to maintain quality control.

**Testimonial:**

"Before working on the project with EISC, everybody was grabbing ideas and we were looking at the problem. But, it was helpful to have an outside party to mediate, facilitate and show us how to start from step one to define the problem. The biggest thing they did for us was the root cause analysis, which

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wasn't familiar to us."

Jeff Christen, Operations Manager